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Subject: Proposed Bark Beetle Prevention Project in Jemez Falls Campground

To: Forest Supervisor, Santa Fe National Forest

The Jemez Falls Campground and several adjacent stands (a total of 220 acres) are proposed for a bark beetle preventative thinning later this year. Treatment of the ponderosa pine forest here would be similar to that completed this past winter in the nearby Redondo Campground.

Project Area. Old-growth forest conditions predominate throughout the Jemez Falls Campground itself and much of the adjacent area proposed for treatment. Tall yellow pines, many of them 150-250 years old, occur in sizable groups and as scattered individuals, an appealing feature of this and the Redondo campgrounds. These large trees comprise the majority of the basal area in much of the proposed treatment area. Understories of dense saplings and poles are irregularly distributed throughout. Basal areas range from 150 to 200 square feet per acre throughout most of the area and exceed 200 ft² in some locations.

Stands along both sides of the paved access road into the campground (for a distance of about 0.75 miles) are included in the proposed treatment area; these are predominantly dense blackjack poles and small sawtimber, with occasional yellow pines. Densities here easily exceed 500 trees/acre, with basal areas similar to those within the campground itself. Also included in the proposal are stands south of the campground and west of the Jemez Falls trailhead. These areas are dominated by older trees, with overstocked groups of saplings in the understory.

Proposed Treatment. The entire proposed treatment area has already been marked for a “free thinning.” Thinning would occur in all size classes but would primarily be designed to reduce overcrowding among medium-size and smaller trees. Several low-vigor/“high risk” yellow pines — both within the campground and in the adjacent stands — are also marked for removal. The better dominant and codominant trees would be retained throughout. The primary objective of the treatment is to increase the overall growth and vigor of the forest, reducing susceptibility of the remaining trees to bark beetles.

The proposed thinning should significantly increase growth and vigor on the remaining cohorts of young and mid-age “replacement trees.” The reduction in competition may also increase the longevity of many of the yellow pines in the campground and surrounding forest. Other benefits of the project would include a reduction in fire hazard and improved aesthetics.



Pest Management Considerations. Several insect and disease issues have been addressed in the development of the silvicultural prescription for this project area. Drought-related pine bark beetle activity (both western pine beetle and ips engraver beetles) has been relatively high in the Jemez Mountains the past two years. Although more common on lower elevations sites (including the Paliza Campground and surrounding area), some activity has been observed throughout most of the Jemez Mountains. Bark beetles will likely continue to be a threat in this area, particularly during dry years. Thinning to reduce basal area is a proven method for reducing long-term bark beetle risk.

Basal areas of 80 square feet/acre or less are generally recommended for reducing bark beetle susceptibility. In both the Redondo and Jemez Falls areas, however, achieving these optimal basal areas would necessitate removing half or more of the existing yellow pines (in addition to a heavy thinning of the understory). Opening up the stands this much could potentially result in windthrow, particularly on the pumice-derived soils of the Jemez. A related issue is root disease; the *Armillaria* fungus is known to be very common in this area. Creation of numerous large stumps would provide a “food base” for the fungus, which could then easily spread to neighboring trees via root contact.

Conclusions. The prescription and marking guidelines ultimately developed for this project appear to represent a good “balance” that should significantly improve tree vigor, while limiting the potential for windthrow and future problems with root disease. Moreover, the treatment should maintain and even enhance the visually pleasing nature of this popular campground.

It is recommended that thinning of this area be conducted between mid-July and mid- December to reduce the potential for a build-up of engraver beetles in the slash. If work continues beyond December, it is important that all pine slash 4” and greater in diameter either be chipped or removed from the site. Chipping would best be conducted in the winter months while beetles are inactive, since the scent of fresh chips may be an attractant.

Please contact us for additional assistance on this project.

/s/ David A. Conklin (for)
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